REMARKS/ARGUMENTS

Reconsideration and withdrawal of the outstanding grounds of rejection are respectfully requested in light of the above amendments and the remarks that follow.

In follow-up to a letter advising applicants of the intent to withdraw the above application from issue, the Examiner subsequently mailed an Office Action dated January 5, 2006, rejecting claims 2-6 and 11-13 under 35 U.S.C. § 102(b) as anticipated by Hatch (U.S. Patent No. 3,965,942).

The Examiner's position with respect to the disclosure of hatch is set forth on pages 2 and 3 of the Official Action need not be repeated here.

Nevertheless, for the reasons that follow, the Examiner's interpretation of Hatch is believed to be erroneous in several respects. For example, the Examiner characterizes the multi-ply woven articles of Hatch as seals but there is nothing in Hatch to suggest that the articles disclose therein are, in any way, intended to serve a seal function. As stated in Hatch (column 1, lines 25-27), "the uses of such panels… presently include walls, roofs, floors, air frame components, and insulation." This explains why in Hatch, a woven article is made with only one layer and why it uses very weak inserts. This is because it only needs to withstand loads perpendicular to its flat surface.

By comparison, the present invention relates to a new type of seal that separates rotating and stationary parts including separate areas of unequal pressures. Particularly, this type of seal is used in turbo machines to lower the leakage flow rate. As described in Figure 3 of the instant application, a seal is disposed between a stationary component and a rotating component and, of course, Hatch is not even remotely concerned with such an environment.

As indicated above, the multi-ply article in Hatch is made from woven fabrics. All of the top and bottom surfaces as well as the ribs are interwoven together using a special loom. With such a structure, it is strong in the directions of warps and wefts but very weak in other directions.

In accordance with the present invention, a non-metallic seal is made with non-woven fabrics to provide a uniform strength in all directions. Non-woven fabrics provide a specific function such as softness, strength, resilience, stretch absorbency, liquid repellency, flame retardancy, washability, cushioning, filtering, bacterial barrier and sterility. Some of these properties are uniquely suitable for generator hydrogen seals, especially for solving the rotating shaft excursion problem. Obviously, these advantages cannot be attained by using woven fabrics of the type disclosed in Hatch.

The Examiner's attention is further directed to column 4, lines 5-7 and column 4, line 40 of Hatch wherein it is disclosed that the multi-ply woven article 10 has single face plies 12 and 14 and double rib plies 16 and 18, with each of the rib plies interwoven with the opposite face plies. Hatch goes on to disclose that the rib plies 16 and 18 are interwoven with one another at each area of interweaving with one of the opposite face plies 12 and 14. This disclosure indicates that in Hatch, the face plies and rib plies are woven together as one part. Therefore, the woven article has only a single layer. By contrast, in the present invention, the non-metallic seal is composed of three discrete non-woven fabric layers .

Hatch also discloses that the stiffness of the woven articles can be increased with the insertion element in the perpendicular direction to the surface of the woven articles. In column 2, lines 30-37, Hatch discloses:

> Where double rib plies are present in the woven article, such plies function structurally as a plurality of trusses. Thus stiffening elements which are relatively thin and lightweight may be inserted in the pockets formed between the double rib plies to provide the woven article with substantial resistance to compressive forces without significantly increasing the overall weight or expense of the article.

From Figures 3A-3G, it can be seen that the inserts in Hatch comprise single or multi-layers made from woven fabrics. The shape of the inserts is similar to a rectangular thin plate, with a rectangular cross-sectional area.

In the present invention, inserts can provide both radial and circumferential stiffness to the seal, while inserts in Hatch can only provide stiffness in one direction (perpendicular to the article surface).

There are a number of additional differences between Hatch and the subject invention: a) in our invention, the shape of the insertion cross-sectional area can be circular, triangular or rhombic (claims 11, 17); b) in the present invention, the material of the insertion can be a metal, plastic or rubber; and c) in the present invention, the inserts can be a tube, solid rod or coiled spring (claim 13).

To even further distinguish the subject invention over Hatch, applicants have amended independent claim 2 to require a seal between a first non-rotating component and a second rotating component. In addition, the first and second fabric layers are required to be non-woven as is the third fabric secured to and between the first and second layers. With these changes, it is respectfully submitted that Hatch neither anticipates nor renders obvious the subject matter of independent claim 2 or any of claims 3-6 and 11-13 which depend therefrom.

For the above reasons, claims 2-6 and 11-13, along with allowed claims 7-10 and 15-18 are now in condition for immediate allowance, early passage to issue is requested. In the event, however, any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

Respectfully submitted,

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